

ROCK RAPIDS IOWA

2013 AIRPORT LAND USE AND HEIGHT OVERLAY ZONING ORDINANCE



With Information Provided By:



Iowa Airport Land Use Guidebook



Prepared with Planning Assistance from
NorthWest Iowa Planning &



DGR Engineering
1302 S. Union Street
Rock Rapids, Iowa

THIS PAGE INTENTIONALLY LEFT BLANK

Table of Contents

Section 1. Introduction	2
Section 2. Authority	2
Section 3. Statement of Purpose and Findings	2
Section 4. Short Title	2
Section 5. Applicability.....	3
Section 6. Definitions	3
Section 7. Air Space Obstruction Zoning	7
Section 8. Airport Zoning Requirements	8
Section 9. Nonconformities.....	8
Section 10. Land Use Safety Zones	9
Section 11. Land Use Zone Compatibility	12
Section 12. Airport Zoning Ordinance Administration	16
Section 13. Airport Zoning Permits.....	16
Section 14. Hazardous Markings and Lighting.....	17
Section 15. Height Limitations	17
Section 16. Airport Board of Adjustment	17
Section 17. Variances.....	18
Section 18. Judicial Review	18
Section 19. Penalties and Fines	18
Section 20. Conflicting Regulations	18
Section 21. Severability	18
Section 22. Effective Date	19
Exhibit A. Airport Land Use & Height Overlay Zoning Map	20

Section 1. Introduction

This ordinance shall regulate and restrict the height of structures, objects, and growth of natural vegetation, as well as land uses; otherwise regulating the use of property, within the vicinity of the Rock Rapids Municipal Airport. Creation of appropriate zones and establishing the boundaries thereof, as well as providing for changes in the restrictions and boundaries of such zones is vested in this ordinance. The Rock Rapids Airport Land Use & Height Zoning maps are incorporated into and made part of this ordinance. This document also provides for the enforcement of the provisions contained within this ordinance, the establishment of an Airport Zoning Board of Adjustment; and imposition of penalties related to the implementation of the ordinance. The 2013 Rock Rapids, Iowa Airport Land Use & Height Overlay Zoning Ordinance is created by the City of Rock Rapids and Lyon County, Iowa with assistance from DGR Engineering of Rock Rapids, IA and Northwest Iowa Planning and Development Commission (NWIPDC) of Spencer, IA.

Section 2. Authority

Iowa Code Section 329.3, Airport Zoning, empowers local municipalities to zone airports including dividing such area into zones, and within such zones, specify the land uses permitted, and regulate and restrict, for the purpose of preventing airport hazards, the heights to which structures and trees may be erected or permitted to grow.

Section 3. Statement of Purpose and Findings

The Rock Rapids Municipal Airport is acknowledged as an essential public facility to the State of Iowa and the local community. The creation or establishment of an airport hazard is a public nuisance and poses a potential concern to the surrounding communities served by the Rock Rapids Municipal Airport. There shall be no creation or establishment of a hazard that neither endangers public health, safety, welfare, and affects an individual's quality of life nor prevents the safe movement of aircraft at the Rock Rapids Municipal Airport.

For the protection of the public health, safety, and general welfare, and for the promotion of the most appropriate use of land, it is necessary to prevent the creation or establishment of airport hazards. The prevention of airport hazards shall be accomplished, to the extent legally possible, by proper exercise of the police power.

The prevention of new airport hazards, and the elimination, removal, alteration, mitigation, or marking and lighting of existing airport hazards, are considered to be a public purpose for which the City of Rock Rapids and/or Lyon County may raise and expend public funds, as an incident to the operation of airports, to acquire or property interest therein.

Section 4. Short Title

This Ordinance shall be known and may be cited as the **Rock Rapids Airport Zoning Ordinance**, and it is referred to as "the Ordinance" within the following sections.

Section 5. Applicability

This ordinance encompasses a general area surrounding the Rock Rapids Municipal Airport. Specific dimensions associated with the zoning boundary are shown in the Rock Rapids Airport Land Use & Height Overlay Zoning Maps. See Exhibit A.

Section 6. Definitions

The following definitions shall be utilized for terms as appropriate to the ordinance.

6.1 Airport. (FAA FAR Sec. 152.3)

Any areas of land or water that is used, or intended for use, for the landing and takeoff of aircraft. Any appurtenant areas that are used, or intended for use, for airport buildings, other airport facilities, or rights-of-way; and all airport buildings and facilities located on the areas specified in this definition. The Rock Rapids Municipal Airport is owned by the City of Rock Rapids, Iowa.

6.2 Airport Elevation. (FAA AC 150/5190-4A)

The highest point on an airport's usable landing area measured in feet from sea level.

6.3 Airport Hazard. (FAA FAR Sec. 152.3)

Any structure or object of natural growth located on or in the vicinity of a public airport, or any use of land near a public airport that- obstruct the airspace required for the flight of aircraft landing or taking off at the airport; or is otherwise hazardous to aircraft landing or taking off at the airport.

6.4 Airport Layout Plan (ALP). (FAA FAR Sec. 152.3)

The plan of an airport showing the layout of existing and proposed airport facilities.

6.5 Airport Overlay Zones.

A zone intended to place additional land use conditions on land impacted by the airport while retaining the existing underlying zone. The FAR Part 77 Surfaces and RPZs have been combined to create five airport overlay zones. The five specific zones create a comprehensive area focused on maintaining compatible land use around airports.

- **Zone A [Runway Protection Zone]** - is intended to provide a clear area that is free of above ground obstructions and structures. This zone is closest to the individual runway ends.
- **Zone B [Approach Surface]** - is a critical overlay surface that reflects the approach and departure areas for each runway at an airport. The size of Zone B is predicated upon the type of approach (visual, non-precision, or precision) that a specific runway has and the type/size of aircraft utilizing the runway.
- **Zone C [Transitional Surface]** - includes those areas that are parallel to the runway pavement and extend from the edge of the primary surface.
- **Zone D [Horizontal Surface]** - is typically elliptical in shape, depending upon the runway types and configurations at an individual airport.
- **Zone E [Conical Surface]** - is the outermost zone of the overlay areas and has the least number of land use restriction considerations. Zone E begins at the edge of the horizontal surface and is 4,000 feet in width paralleling the horizontal surface.

6.6 Airport Zoning Permit.

Airport zoning permit allowing new development or alteration or expansion of a nonconforming use.

6.7 Airside.

That portion of the airport facility where aircraft movements take place, airline operations areas, and areas that directly serve the aircraft, such as taxiway, runway, maintenance and fueling areas.

6.8 Airspace.

The space lying above the earth or above a certain area of land or water that is necessary to conduct aviation operations.

6.9 Airport Land Use & Height Overlay Zoning Map.

The airport land use & height overlay zoning map is compiled from the criteria in FAR Part 77, "Objects Affecting Navigable Airspace." It shows the area affected by the Airport Overlay Zoning Ordinance, and includes the layout of runways, airport boundaries, elevations, and area topography. Applicable height limitation areas are shown in detail.

6.10 Approach Slope. (FAR Part 77)

The ratio of horizontal to vertical distance indicating the degree of inclination of the Approach Surface. The ratio is 20:1 for all utility and visual runways extended from the primary surface a distance of 5,000 feet.

6.11 Approach Surface. (FAA AC 150/5190-4A)

A surface longitudinally centered on the extended runway centerline, extending outward and upward from the end of the primary surface and at the same slope as the approach zone height limitation slope set forth in this Ordinance. In plan the perimeter of the approach surface coincides with the perimeter of the approach zone.

6.12 City.

The City of Rock Rapids, Iowa.

6.13 Compatibility.

The degree to which land uses or types of development can coexist or integrate.

6.14 County.

Lyon County, Iowa.

6.15 Easement. (FAA AC 5020-1)

The legal right of one party to use a portion of the total rights in real estate owned by another party. This may include the right of passage over, on, or below property; certain air rights above the property, including view rights; and the rights to any specified form of development or activity, as well as any other legal rights in the property that may be specified in the easement document.

6.16 Federal Aviation Administration (FAA).

A federal agency charged with regulating air commerce to promote its safety and development; encourage and develop civil aviation, air traffic control, air navigation; and promoting the development of a national system of airports.

6.17 **Federal Aviation Regulations (FAR).** *(FAA FAR)*

Regulations established and administered by the FAA that govern civil aviation and aviation-related activities.

- **FAR Part 36.** *(FAA FAR Sec. 36.1)* Regulation establishing noise standards for the civil aviation fleet.
- **FAR Part 91.** *(FAA FAR Sec. 91.1)* Regulation pertaining to air traffic and general operating rules, including operating noise limits.
- **FAR Part 150.** *(FAA FAR Sec. 150.1)* Regulation pertaining to airport noise compatibility planning.
- **FAR Part 161.** *(FAA FAR Sec. 161.1)* Regulation pertaining to notice and approval of airport noise and access restrictions.
- **FAR Part 77.** *(FAA FAR Sec. 77.1)* Objects Affecting Navigable Airspace - Part 77 (a) establishes standards for determining obstructions in navigable airspace; (b) defines the requirements for notice to the FAA Administrator of certain proposed construction or alteration; (c) provides for aeronautical studies of obstructions to air navigation to determine their effect on the safe and efficient use of airspace; (d) provides for public hearings on the hazardous effect of proposed construction or alteration on air navigation; and (e) provides for establishing antenna farm areas.

6.18 **General Aviation Airport.**

Any airport that is not an air carrier airport or a military facility.

6.19 **Height.**

Height is utilized for the purpose of determining the height limits in all zones set forth in this Ordinance and shown on the Official Height Zoning Map; height shall be measured as the highest point of a structure, tree, or other object of natural growth, measured from the mean sea level elevation unless otherwise specified.

6.20 **Imaginary Surfaces.** *(FAA FAR Part 77.25)*

Those areas established in relation to the airport and each runway consistent with FAR Part 77 in which any object extending above these imaginary surfaces, by definition, is an obstruction.

- **Transitional surface.** The transitional surface extends outward and upward at right angles to the runway centerline and extends at a slope of seven feet horizontally for each one foot vertically (7:1) from the sides of the primary and approach surfaces. The transitional surfaces extend to the point at which they intercept the horizontal surface at a height of 150 feet above the established airport elevation.
- **Horizontal surface.** The horizontal surface is a horizontal plane located 150 feet above the established airport elevation and encompasses an area from the transitional surface to the conical surface. The perimeter is constructed by generating arcs from the center of each end of the primary surface and connecting the adjacent arcs by lines tangent to those arcs.
- **Conical surface.** The conical surface extends upward and outward from the periphery of the horizontal surface at a slope of 20 feet horizontally for every one foot vertically (20:1) for a horizontal distance of 4,000 feet.
- **Approach surface.** The approach surface is longitudinally centered on an extended runway centerline, and extends outward and upward from the end of the runway primary surface.

6.21 Incompatible Land Use. *(FAA FAR Sec. 150.7)*

The use of land which is normally incompatible with the aircraft and airport operations (such as, but not limited to, homes, schools, nursing homes, hospitals, and libraries).

6.22 Land Use Compatibility.

The coexistence of land uses surrounding the airport with airport-related activities.

6.23 Lighting and Marking of Hazards to Air Navigation.

Installation of appropriate lighting fixtures, painted markings or other devices to such objects or structures that constitute hazards to air navigation.

6.24 Mitigation.

The minimization, reduction, elimination or compensation for adverse environmental effects of a proposed action.

6.25 Noise Impact.

A condition that exists when the noise levels that occur in an area exceed a level identified as appropriate for the activities in that area.

6.26 Noise Sensitive Area. *(FAA AC 91-36D)*

Defined as an area where noise interferes with normal activities associated with the area's use. Examples of noise-sensitive areas include residential, educational, health, and religious structures and sites, and parks, recreational areas (including areas with wilderness characteristics), wildlife refuges, and cultural and historical sites where a quiet setting is a generally recognized feature or attribute.

6.27 Non-Conforming Use. *(FAA Web site)*

Any pre-existing structure, tree, or use of land that is inconsistent with the provisions of the local land use or airport master plans.

6.28 Object. *(FAA AC 150/5300-13)*

Includes, but is not limited to above ground structures, navigational aids, people, equipment, vehicles, natural growth, terrain, and parked aircraft.

6.29 Obstacle Free Zone (OFZ). *(FAA 150/5300-13)*

The OFZ is the airspace below 150 feet (45 m) above the established airport elevation and along the runway and extended runway centerline that is required to be clear of all objects, except for the frangible visual NAVAID's that need to be located in the OFZ because of their function, in order to provide clearance protection for the aircraft landing or taking off from the runway, and for missed approaches.

6.30 Obstruction. *(FAA AC 150/5190-4A)*

Any structure, growth, or other object, including a mobile object, which exceeds a limiting height, specific to its geographic location relative to the runway/airport.

6.31 Overlay Zone.

A mapped zone imposing requirements in addition to those of the underlying zoning district.

6.32 Primary Surface. *(FAA AC 150/5190-4A)*

A surface longitudinally centered on a runway. When the runway has a specially prepared hard surface, the primary surface extends 200 feet beyond each end of that runway; for military runways or when the runway has no specially prepared hard surface, or planned hard surface, the primary surface ends at each end of that runway. The width of the primary surface is set forth in FAR Part 77. The elevation of any point on the primary surface is the same as the elevation of the nearest point on the runway centerline.

6.33 Primary Runway. (FAA AC 150/5325-4B)

The runway used for the majority of airport operations. Large, high-activity airports may operate two or more parallel primary runways.

6.34 Public Use Airport. (FAA AC 150/5190-6)

Means either a publicly owned airport or a privately owned airport open for public use.

6.35 Runway Protection Zone (RPZ). (FAA AC 150/5300-13)

An area off the runway end designed to enhance the protection of people and property on the ground.

6.36 Structure.

Any object constructed or installed by humans, including, but without limitation, buildings, towers, smokestacks, and overhead transmission lines, including the poles or other structures supporting the same.

6.37 Variance.

An authorization for the construction or maintenance of a building or structure, or for the establishment or maintenance of a use of land that is prohibited by a zoning ordinance. A lawful exception from specific zoning ordinance standards and regulations predicated on the practical difficulties and/or unnecessary hardships by the petitioner being required to comply with the regulations and standards from which a variance is sought.

6.38 Visual Approach.

An approach to an airport conducted with visual reference to the terrain.

6.39 Visual Runway. (FAA AC 150/5300-13)

A runway without an existing or planned straight-in instrument approach procedure.

6.40 Wildlife Hazards.

Wildlife (birds, mammals, reptiles), including feral animals and uncontrolled domesticated animals associated with aircraft strike problems, and capable of causing structural damage to airport facilities or attractants to other wildlife that pose a strike hazard.

Section 7. Air Space Obstruction Zones & Airport Overlay Zoning Maps

The zones established by this ordinance is illustrated on the official Rock Rapids Municipal Airport Land Use & Height Overlay Zoning Map consisting of two (2) sheets, prepared by DGR Engineering, attached as Exhibit A to this Ordinance. Such Official Airport Land Use & Height Overlay Zoning Map may be amended from time to time, and all notations, references, elevations, data, zone boundaries, and other information thereon, is hereby adopted as part of this ordinance.

Section 8. Airport Zoning Requirements

In accordance with Section 329.10, Iowa Code, there are three (3) principal airport zoning requirements supported by additional information contained within the following remaining sections of this ordinance. These basic zoning requirements state:

1. All airport zoning regulations adopted under this ordinance shall be reasonable and no provisions shall impose requirements not necessary to ensure the intent and purposes of this ordinance.
2. Airport zoning regulations adopted under this ordinance may require the removal, lowering, or other change or alteration of any structure or tree, or a change in use, not conforming to the regulations when adopted or amended. Airport zoning regulations adopted under this ordinance may require a property owner to permit the city to install, operate, and maintain on the property markers and lights as necessary to indicate to operators of aircraft the presence of the airport hazard, when adopted or amended.
3. All such regulations may provide that a preexisting nonconforming structure, tree, or use, shall not be replaced, rebuilt, altered, allowed to grow higher, or replanted, so as to constitute a greater airport hazard than it was when the airport zoning regulations or amendments to the regulations were adopted.

The City of Rock Rapids or the city and Lyon County in conjunction will be responsible for the initial removal of trees, structures, or other natural or man-made obstructions that are not conforming to the regulations of this ordinance when adopted or amended. Any subsequent alterations or removal of any natural or man-made obstructions to the Rock Rapids Municipal Airport or its airspace will be responsibility of the property owner. Prior to any obstruction being removed, either natural or man-made, the property owner(s) shall be properly notified by the City of Rock Rapids of such obstruction and the extent of removal necessary to comply with FAA and Iowa DOT aviation standards for clearance space near airports.

Section 9. Nonconformities

It is the intent of this ordinance to permit legal nonconforming buildings, structures, or natural resources to continue until they are removed but not to encourage their survival, unless such nonconforming use is determined by the FAA to be a hazard within one of the airport zones and must be altered or changed in accordance with FAA regulations. It is further the intent of this ordinance that nonconformities shall not be enlarged upon, expanded or extended, nor be used to add other nonconforming structures prohibited elsewhere in the defined airport zones.

In accordance with Section 329.10, Iowa Code, and stated above in Section 8. of this ordinance, any preexisting nonconforming structure, tree, or land use, shall not be replaced, rebuilt, altered, allowed to grow higher, or replanted, so as to constitute a greater airport hazard than it was when the airport zoning regulations or amendments to the regulations were adopted. With that stated, where a lawful building or structure exists prior to the effective date of adoption or amendment of this ordinance that cannot be built under the terms of this airport ordinance by reason of restrictions on height or land use compatibility, such structure may be

continued so long as it remains otherwise lawful and in compliance with FAA regulations; subject to the following provisions:

1. No such structure may be enlarged or altered in a way that increases its nonconformity. Such structure may be enlarged or altered in a way that does not increase its nonconformity.
2. Should such structure be destroyed by any means to an extent of more than fifty (50) percent of its replacement cost, it shall be reconstructed only in conformity with the provisions of this airport ordinance.
3. Should any structure be moved within the boundaries of any of the five (5) airport zones for any reason or for any distance whatever, it shall thereafter conform to the regulations of this airport zoning ordinance.
4. Discontinuance. In the event a nonconforming building, structure or use is discontinued for a period of one (1) year, the height or land use compatibility shall conform thereafter to the provisions of this airport zoning ordinance.

On any nonconforming building or structure, work may be done on ordinary repairs or replacement of non-bearing walls not exceeding fifty (50) percent of the assessed value of the building, provided the cubic content of the building shall not be increased. Nothing in this ordinance shall be deemed to prevent the strengthening or restoring to a safe condition of any building or part thereof declared to be unsafe by an official charged with protecting the public safety upon orders of such official. There may be a change of tenancy, ownership, or management of any existing nonconforming uses of land, buildings or structures.

Section 10. Land Use Safety Zones

FAR Part 77 Surfaces and Runway Protection Zones have been combined to create five (5) airport overlay zones. These five zones are designed to maintain compatible land uses around the Rock Rapids Municipal Airport. The zones shall be evaluated for compatible land uses. Specific dimensions for the individual zones for each runway end are noted in the following tables and text. The Airport Land Use & Height Overlay Zoning Maps should be evaluated to determine the specific area of impact associated with each zone.

Zone A – Runway Protection Zone (RPZ)

Zone A is intended to provide a clear area that is free of above-ground obstructions and structures. Runway Protection Zones (RPZs), formerly known as clear zones, were originally established to define land areas below aircraft approach paths in order to prevent the creation of airport hazards or development of incompatible land use. As stated in the Iowa Airport Land Use Guidebook, 2008, the FAA adopted clear zones with dimensional standards to implement a recommendation from the 1952

President's Airport Commission study that identified the establishment of clear areas beyond runway ends was deemed worthy of federal management. RPZs are designed with the intent to protect people and property on the ground. They are located at the end of each runway and should

Areas around runways
and runway ends must
be protected!



ideally be controlled by the airport. Control is preferably exercised by acquisition of sufficient property interest to achieve and maintain an area that is clear of all incompatible land uses, objects, and activities.

Table 1. Zone A - Dimensional Requirements

	Runway Ends	Approach Visibility Minimums ¹	Dimensions		
			Length L feet	Inner Width W₁ feet	Outer Width W₂ feet
Existing Runway 3,100'	Runway 16	1 Mile	1,000	500	700
	Runway 34	1 Mile	1,000	500	700
Future Runway 4,200'	Runway 17	1 Mile	1,000	500	700
	Runway 35	1 Mile	1,000	500	700

1. The RPZ dimensional standards are for the runway end with the specified approach visibility minimums. .

Source: FAA AC 150/5300-13, current edition, Airport Design Standards

Zone B – Approach Surface

Zone B is a critical airport overlay zoning surface that reflects the approach and departure areas for each runway at an airport. The size of Zone B is predicated upon the type of approach (visual, non-precision, or precision) that a specific runway has and the type/size of aircraft utilizing the runway. The approach surface is longitudinally centered on the extended runway centerline and extends outward and upward from the end of the primary surface. The inner edge of the approach surface is the same width as the primary surface and expands uniformly. Table 2 below illustrates the various sizes of Zone B based upon the specific runway criteria. A portion of Zone B is overlain by Zone A because the approach surface and RPZ overlap the entire length of the RPZ. Consequently, the length of Zone B begins at the inner edge of the RPZ.

Table 2. Airport Overlay Zones B through E Dimensional Standards

Item	Runway Dimensional Standards (Feet)			
	Existing Runway		Proposed Future Runway (or proposed runway modifications)	
	Runway 16	Runway 34	Runway 17	Runway 35
Primary surface width and Zone B inner width	500 ft.	500 ft.	500 ft.	500 ft.
Zone B end width	2,000 ft.	2,000 ft.	2,000 ft.	2,000 ft.

Table 2. Airport Overlay Zones B through E Dimensional Standards (continued)

Zone B length	5,000 ft.	5,000 ft.	5,000 ft.	5,000 ft.
Zone C width	1,050 ft.	1,050 ft.	1,050 ft.	1,050 ft.
Zone D radius	5,000 ft.	5,000 ft.	5,000 ft.	5,000 ft.
Zone E width	4,000 ft.	4,000 ft.	4,000 ft.	4,000 ft.

Zone C – Transitional Surface

Zone C includes those areas that are parallel to the runway pavement and extend 1,050 feet from the edge of the primary surface paralleling the runway and extended runway centerline until they reach the end of Zone A at a 90 degree angle. The specific dimensions for Zone C are based upon various options for the primary surface that is predicated upon the type of approach and critical aircraft. The transitional surface (Zone C) extends outward and upward at right angles to the runway centerline and extends at a slope of seven feet horizontally for each one-foot vertically (7:1) from the sides of the primary and approach surfaces. The transitional surfaces extend to the point at which they intercept the horizontal surface at a height of 150 feet above the established airport elevation.

Zone D – Horizontal Surface

Zone D is typically elliptical in shape, depending upon the runway types and configurations at individual airports. The horizontal surface is a horizontal plane located 150 feet above the established airport elevation and encompasses an area from the transitional surface to the conical surface. The perimeter is constructed by generating arcs from the center of each end of the primary surface and connecting the adjacent arcs by lines tangent to those arcs. The radius of each arc for all runway ends designated as utility or visual airports is 5,000 feet.

It is important to protect airports from tall structures that can obstruct navigable airspace!



Zone E – Conical Surface

Zone E is the outermost zone of the airport overlay zoning areas and has the least number of land use restriction considerations. The zone begins at the edge of the horizontal surface and is 4,000 feet in width paralleling the horizontal surface. According to the Iowa Airport Land Use Guidebook, the conical surface extends upward and outward from the periphery of the horizontal surface at a slope of 20 feet horizontally for every one foot vertically (20:1) for a horizontal distance of 4,000 feet. Height limitations for the surface range from 150 feet above the airport reference elevation at the inner edge to 350 feet at the outer edge.

Section 11. Land Use Zone Compatibility

The need to plan for compatible land use near airports is not a new concept. Compatible land use was recognized as early as 1952 in a document entitled *The Airport and Its Neighbors - The Report of the President's Airport Commission*. As stated in the Iowa Airport Land Use Guidebook, the incidence of incompatible land uses and impact on airport operations and development have escalated. As decisions to allow incompatible land uses near airports threaten the nation's aviation system, implementation of compatible land use controls have become an industry priority. It is important for the Rock Rapids Municipal Airport to maintain an obstruction-free airport and associated airspace. This includes the area that encompasses the airport, runway protection zones, approach areas, and general vicinity of the airport. While some of these areas are owned by airports, the bulk of the land beyond airport boundaries is privately owned; and as such will be subject to regulations of this ordinance for the jurisdiction in which the Airport Land Use and Height Overlay Zoning Ordinance covers (see attached Airport Zoning Maps). FAA criteria, such as grant assurances and design guidelines, along with aviation accident statistics, provide the foundation and the justification for compatible land uses.

DEFINITION OF "COMPATIBLE LAND USE" - Airport compatible land uses are defined as those developments that comply with generally accepted restrictions on location, height, and activity that provide for safe aircraft movement and airport operations. Additionally, it includes the preservation of public health, safety, and welfare for those persons located in the airport's environs.

The above stated definition, defined in the Iowa Airport Land Use Guidebook, appears vague since no specific land use types are specified. However, the vagueness is intentional because nearly every type of land use can be both compatible and incompatible depending upon the particular aspects of the land use, including management of the land use, location of the land use relative to the airport. For example, land uses typically considered to be compatible with airport operations include commercial, industrial, and agricultural activities. With that said, each of these uses may also contain aspects considered incompatible such as:

- Commercial uses may have dense concentrations of people
- Industrial uses that can generate smoke/steam that creates visual obstructions
- Agricultural operations can act as wildlife attractants in certain circumstances

The City of Rock Rapids, the Rock Rapids Airport Commission and Lyon County must each and collaboratively assess the compatibility of the land uses in detail as related to the Rock Rapids Municipal Airport. Descriptions of land use issues include high concentrations of people, tall structures, visual obstructions, and wildlife and bird attractants.

Lastly, land use compatibility is critical to the Rock Rapids Municipal Airport because certain grant assurances are required as part of a project application from airports that are eligible to request federal funds. Upon acceptance of grant money, these assurances are incorporated into and become part of the grant agreement. The airport sponsor is obligated to comply with specific assurances, which include the maintenance of compatible land use within the vicinity of the airport. Specifically, Grant Assurance 21 included in the September 1999 amendment to 49 USC 47107,

requires all airports that accept federal money to take appropriate action against incompatible land uses in the immediate vicinity of the airport. Such actions include adopting zoning laws and zoning changes that will increase airport land use compatibility. This grant assurance obligates an airport sponsor to protect the federal investment through the maintenance of a safe operating environment. The development of compatible land uses near airports is supported through cooperative comprehensive planning that includes FAA standards. Land use compatibility is a requirement for eligibility to receive FAA grant money for airport improvements. Adjacent land uses that are not compatible with airports may result in the loss of federal or state funding for airports.

Land use compatibility is a requirement for eligibility to receive FAA grant money and State of Iowa funding for airport improvements!



The following tables shall be utilized to evaluate land use compatibility for various land use classifications.

1. Uses identified as **COMPATIBLE** shall not require additional review; however, consideration should be given to the following areas of concerns: High concentrations of people, tall structures, visual obstructions, or wildlife and bird attractants.
2. Uses found to be **NOT COMPATIBLE** shall be precluded from development within the specific zones. The applicant reserves the right to apply for a variance for an incompatible use to be built within the requested airport zone and in accordance with FAA requirements. Variances will be reviewed by the Rock Rapids Airport Board of Adjustment.
3. Uses found to require **ADDITIONAL REVIEW** shall be evaluated for general compatibility by the Rock Rapids Airport Zoning Administrator for potential conflicting land uses or potential negative affects that may need to be mitigated. If the areas of concern are addressed by the applicant, the Airport Zoning Administrator shall recommend issuance of the zoning permit. If no areas of potential conflicting uses or incompatible land uses are identified, or need to be mitigated, the Airport Zoning Administrator shall proceed to recommend issuance of the zoning permit.

See the Rock Rapids Municipal Airport land use charts on the following pages. These land use charts indicate basic compatible and not compatible uses pertaining to residential, commercial, industrial, civic/public, infrastructure, agriculture, and parks and recreation uses. If a specific use of land, building or structure is proposed by an applicant and not identified on the following charts, the Airport Zoning Administrator shall be responsible for determining the level of land use compatibility in each applicable zone. If the applicant disagrees with the decision of the zoning administrator, they may appeal the decision of the administrator and have the Airport Board of Adjustment make a determination on the proposed land use compatibility.

Rock Rapids Airport Zone – Land Use Chart					
<i>C = Compatible</i>		<i>AR = Additional Review Required</i>		<i>NC = Not Compatible</i>	
Land Uses	Zone A	Zone B	Zone C	Zone D	Zone E
RESIDENTIAL USES					
Single Family Detached Dwelling <i>(i.e. single family, mobile or manufactured)</i>	NC	AR	AR	C	C
Multi-Family Uses <i>(i.e. apartments, condos, townhouse, etc.)</i>	NC	NC	AR	C	C
Group Living Uses <i>(i.e. group or nursing homes, assisted living)</i>	NC	NC	AR	C	C
Manufactured/Mobile Housing Parks	NC	AR	AR	C	C
COMMERCIAL USES					
Eating and Drinking Establishments <i>(i.e. restaurants, cafes, fast food restaurants, bars, nightclubs, taverns, etc.)</i>	NC	AR	AR	C	C
General Office Uses <i>(i.e. business offices, financial businesses, government offices - 35 ft. or less in height)</i>	NC	AR	AR	C	C
Medical Office/Clinic Uses <i>(i.e. medical/dental clinics, chiropractic, physical therapy - 35 ft. or less in height)</i>	NC	AR	AR	C	C
Retail Sales <i>(i.e. convenience stores, electronics, furniture, groceries, hardware, malls, etc.)</i>	NC	AR	AR	C	C
Retail Hospitality <i>(i.e. hotels, motels, convention centers, meeting halls, event facilities, etc.)</i>	NC	AR	AR	C	C
Outdoor Storage and Display <i>(i.e. storage yards, vehicles sales, nurseries, equipment sales, etc.)</i>	NC	AR	AR	C	C
Vehicle Repair & Service Stations <i>(i.e. vehicle or service shops, alignment shops, tire sales, gas stations)</i>	NC	AR	AR	C	C
All Other Commercial Uses <i>Any other commercial use not classified in one of the above listed categories</i>	NC	AR	AR	C	C
INDUSTRIAL USES					
Light Manufacturing <i>(i.e. research, HVAC, plumbing, janitorial, engineering, assembly, warehousing, etc.)</i>	NC	AR	AR	AR	C
Heavy Manufacturing <i>(i.e. concrete plants, packing, animal, ethanol or other facilities with excessive smoke/dust)</i>	NC	NC	NC	AR	C
Mining and Extraction Uses	NC	NC	AR	C	C
Salvage Operations <i>(damaged/discarded vehicles, machinery, etc.)</i>	NC	C	C	C	C
Self-Service Storage Uses <i>(i.e. mini-warehouses/storage facilities)</i>	NC	C	C	C	C

<i>C = Compatible AR = Additional Review Required NC = Not Compatible</i>					
Land Uses	Zone A	Zone B	Zone C	Zone D	Zone E
Waste-Related Uses (i.e. recycling, landfills, transfer stations, treatment facilities, hazardous waste sites)	NC	NC	NC	AR	AR
CIVIC & PUBLIC USES					
Basic Utility Uses (i.e. substations, water/sewer lift stations)	NC	AR	AR	C	C
General Community Services (i.e. libraries, museums, community centers, police/fire stations, detention facilities)	NC	AR	AR	C	C
Daycare Uses (i.e. daycare, preschools, after school care)	NC	NC	AR	C	C
Educational Facilities (i.e. any public or private school)	NC	NC	AR	C	C
Hospitals (i.e. hospitals, medical centers)	NC	NC	AR	C	C
Religious Assembly or Civic Uses (i.e. churches, religious use or civic clubs)	NC	NC	AR	C	C
INFRASTRUCTURE USES					
Communication Transmission Uses (i.e. broadcast, wireless, point to point, emergency towers and antennae)	NC	NC	NC	AR	AR
Transportation and Parking Uses (i.e. highways, local and county roads, ground lots, parking structures)	AR	C	C	C	C
Utility Uses (i.e. solar power generation equipment, wind generators, wind farms)	NC	NC	NC	AR	AR
AGRICULTURE USES					
Agriculture Plant-related (i.e. crops, vegetable, fruit, or tree farms, etc.)	AR	C	C	C	C
Agriculture Animal-related (i.e. livestock production, dairies, horse farms)	AR	C	C	C	C
Agricultural Housing (i.e. residential dwellings for ag purposes)	NC	AR	AR	C	C
Agricultural Facilities/Buildings (i.e. fuel storage, grain elevator, sales, etc.)	NC	NC	AR	AR	C
RECREATION USES					
Outdoor Commercial Recreation (i.e. camping, pools, drive-in theaters, amphitheaters, fairgrounds, race tracks, etc.)	NC	NC	AR	C	C
Indoor Commercial Recreation (i.e. health clubs, bowling alleys, skating rinks, billiard halls, arcades, indoor theaters)	NC	AR	AR	C	C
Golf Recreation (driving ranges, golf courses, country clubs)	NC	AR	AR	C	C
Parks (i.e. aquatic, neighborhood, school, community)	NC	AR	AR	C	C

Section 12. Airport Zoning Ordinance Administration

As stated in Section 329.13, Iowa Code, all airport zoning regulations adopted under this ordinance shall provide for the administration and enforcement of such regulations by an administrative agency. For purposes of the Rock Rapids Airport Zoning Ordinance, the administration will be enforced by the Rock Rapids Zoning Administrator with consultation and cooperation from the Lyon County Zoning Administrator, if requested. However, in no case, shall such administrative agency be or include any member of the airport Board of Adjustment. The duties of any administrative agency designated pursuant to the Iowa Code or this ordinance shall not include any of the powers herein delegated to the Board of Adjustment. The Rock Rapids Zoning Administrator will be the first point of contact on the Rock Rapids Airport Zoning Ordinance regulations since the operation of the Rock Rapids Municipal Airport falls within the jurisdiction of the city. With that stated, if needed, the Lyon County Zoning Administrator may be called upon from time to time to consult with and/or confer with the Airport Zoning Administrator about the airport zoning ordinance regulations. Furthermore, applications for permits and variances from the Rock Rapids Airport Zoning Ordinance shall be made to the Airport Zoning Administrator upon forms furnished by the city within the office of the Rock Rapids Zoning Administrator. Applications for action by the Board of Adjustment shall be forthwith transmitted by the Airport Zoning Administrator should an applicant request review. Permit applications shall be either granted or denied by the Airport Zoning Administrator according to the regulations prescribed herein.

Section 13. Airport Zoning Permits

Buildings or other structures located within the Rock Rapids Municipal Airport land use and height overlay zoning area as defined within this ordinance shall not be erected, moved, added to, or structurally altered without an airport zoning permit issued by the Airport Zoning Administrator. Airport zoning permits may be reviewed and granted in conjunction with or supplemental to a Rock Rapids zoning permit or regulations. It shall be the duty of the applicant to provide the Airport Zoning Administrator with sufficient information to evaluate the proposed action. This information shall include but not be limited to the following:

- Contact information including applicant and engineer/architect information
- Structure information and/or type of construction
- Site information (a site plan consistent with the city's zoning regulations)
- Identify current and potential compatibility concerns
- Develop compatible criteria
- Additional considerations/Land use concerns

The Airport Zoning Administrator shall evaluate the proposal based upon information provided by the applicant. The Airport Zoning Administrator shall approve the permit if after evaluation, the proposed project is found to be adequately compatible. Should the proposed project be found to be incompatible after review, the Airport Zoning Administrator shall deny the permit. Should the permit be denied, the applicant shall have the right to request an appeal as prescribed in this ordinance. Any airport zoning permit shall be null and void if the purpose for which the permit is issued has not commenced within one (1) year from date of issuance. Should the activity not be commenced within that time, a new zoning permit shall be required.

Section 14. Hazardous Markings and Lighting

This section provides for safe aircraft operations, as well as the health, safety, and welfare of individuals on the ground within the vicinity of the airport by identifying lighting and marking requirements. Lighting and marking requirements will be determined through an FAA 7460-1 airspace analysis. The owner of any structure, object, natural vegetation, or terrain is hereby required to install, operate, and maintain such markers, lights, and other aids to navigation necessary to indicate to the aircraft operators in the vicinity of an airport the presence of an airport hazard. Hazardous markers and lights shall be installed, operated, and maintained at the expense of the owner of such building, structure or object requiring such lighting or marking requirements within the findings of an FAA 7460-1 airspace analysis.

Section 15. Height Limitations

No structure, object, natural vegetation, or terrain shall be erected, altered, allowed to grow or be maintained within any airport zoning district established by this ordinance to a height in excess of the applicable height limitations set forth in this ordinance. The permitted height shall not exceed the difference between the grade elevation and the height limitation numbers illustrated on the “Official Rock Rapids Municipal Airport Land Use & Height Overlay Map” within the airport zoning district encompassed by this ordinance. The Rock Rapids Municipal Airport Land Use & Height Overlay Map is located in the Rock Rapids city offices and the Lyon County Assessor’s Office. An FAA 7460-1 airspace review shall provide a portion of the information necessary to evaluate potential height impacts. However, it shall not be the sole source of review. Furthermore, if the height limitations of this airport zoning ordinance and accompanying Airport Land Use & Height Overlay Map are in conflict with the underlying height limitations imposed within either the City of Rock Rapids or Lyon County zoning ordinances, the more restrictive height limitation shall apply.

Section 16. Airport Board of Adjustment

The Board of Adjustment shall consist of two (2) members from each governmental jurisdiction, including the City of Rock Rapids and Lyon County, selected by the governing body thereof, and one (1) additional member to be selected by the Rock Rapids Airport Board. The five (5) appointed members will select a chairperson amongst themselves. Board of Adjustment members may be removed for cause by the appointing authorities (either City of Rock Rapids or Lyon County) upon written charges and after a public hearing. Vacancies shall be filled for the unexpired term of any member whose office becomes vacant in the same manner in which said member was selected. The terms of the board members shall be for five (5) years, except when the board is first created, one (1) of the members appointed by each participating governmental jurisdiction shall be appointed for a term of two years and one (1) for a term of four years.

Any person, property owner, or taxpayer impacted by any decision of this ordinance, may appeal to the Board of Adjustment. According to Section 329.12, Iowa Code, the governing body of any municipality seeking to exercise powers under Chapter 329, shall by ordinance provide for the appointment of a Board of Adjustment, as provided in section 414.7 for a city, or as provided in section 335.10 for a county. The board of adjustment has the same powers and duties, and its procedure and appeals are subject to the same provisions as established in sections 414.9 to 414.19 for a city, or sections 335.12 to 335.21 for a county. The concurring vote of a majority of the board shall be necessary to reverse any order, requirement, decision or determination of any

administrative official or to decide in favor of the applicant on any matter upon which it is required to pass under any regulations adopted pursuant to this chapter or to effect any variance therefrom.

Section 17. Variances

In accordance with Section 239.11, Iowa Code, any person desiring to erect, alter, or increase the height of any structure, object, or to permit the growth of any natural vegetation, or otherwise use the person's property in violation of airport zoning regulations adopted under this ordinance, may apply to the Board of Adjustment for a variance from such zoning regulations. Such variances shall be allowed where a literal application or enforcement of the regulations would result in practical difficulty or unnecessary hardship and the relief granted would not be contrary to the public interest, but would do substantial justice and be in accordance with the spirit of the regulations and this chapter; provided, however, that any such variance may be allowed subject to any reasonable conditions that the Board of Adjustment may deem necessary to effectuate the purposes of this Ordinance. No application for variance to the requirements of this Ordinance may be considered by the Board of Adjustment unless a copy of the application has been submitted to the Rock Rapids Airport Zoning Administrator for an opinion as to the aeronautical effects of the variance.

Section 18. Judicial Review

This section defines the method for the judicial review process. In following a process set forth in the Rock Rapids Zoning Ordinance, According to Section 15.08(6), any person or persons aggrieved, or by any public officer, department, board, bureau, corporation or others affected by any decision of the enforcing officer or Board of Adjustment may seek review of such decision by a Court of Record in the manner provided by the laws of the State of Iowa and particularly by Section 414.15 of the Iowa Code.

Section 19. Penalties and Fines

Any violation of this ordinance or of any regulation, order, or ruling promulgated hereunder shall constitute a simple misdemeanor. In accordance with the Rock Rapids Zoning Ordinance, any violation of the Rock Rapids Airport Ordinance shall be subject to the same fines and penalties as a zoning violation. Each day a violation continues shall constitute a separate offense.

Section 20. Conflicting Regulations

In accordance with Section 329.8, Iowa Code, where there exists a conflict between any of the regulations or limitations prescribed in this ordinance and any other regulations applicable to the same area, whether the conflict be with respect to height or structures, the use of land, or any other matter, the more stringent limitation or requirement shall govern and prevail.

Section 21. Severability

If any provision of this ordinance or the application thereof to any person or circumstances is held invalid, such invalidity shall not affect other provisions or applications of the ordinance, which can be given effect without the invalid provision or application, and to this end the provisions of this ordinance are declared to be severable.

Section 22. Effective Date

This ordinance shall be in effect from and after its adoption by the governing body and publication and posting as required by law, as provided for in Chapter 380.6 and 380.7, Iowa Code.

(Code of Iowa, Sec. 380.6[1]; Sec. 380.7[3]; and Sec. 362.3)

Adoption

City of Rock Rapids, Iowa

Passed and approved by motion of the first consideration on November 11, 2013

Passed and approved by motion of the second consideration on November 11, 2013

Passed and approved by motion of the third and final consideration on November 11, 2013

Adopted on November 11, 2013

Published on November 20, 2013

Jason Chase
Mayor, City of Rock Rapids

ATTEST:

Jordan Kordahl, Rock Rapids City Clerk

Lyon County, Iowa

Passed and approved by motion of the first consideration on October 14, 2013

Passed and approved by motion of the second consideration on October 14, 2013

Passed and approved by motion of the third and final consideration on October 14, 2013

Adopted on October 14, 2013

Published on October 23, 2013

Randy Bosch
Chair, Lyon County Board of Supervisors

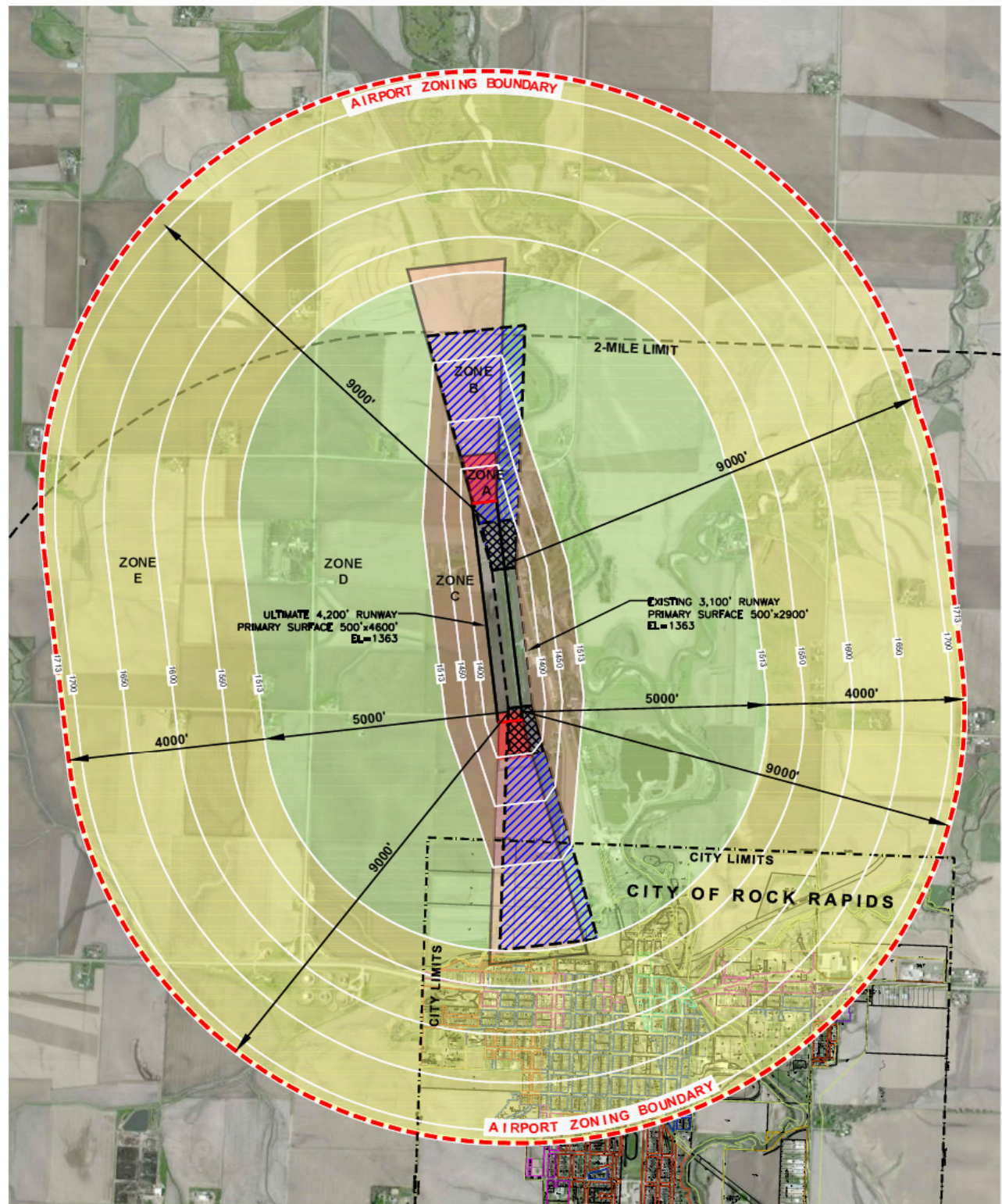
ATTEST:

Jen Smit, Lyon County Auditor

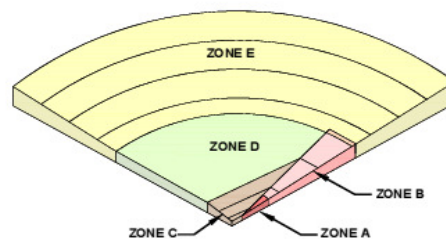
Exhibit A

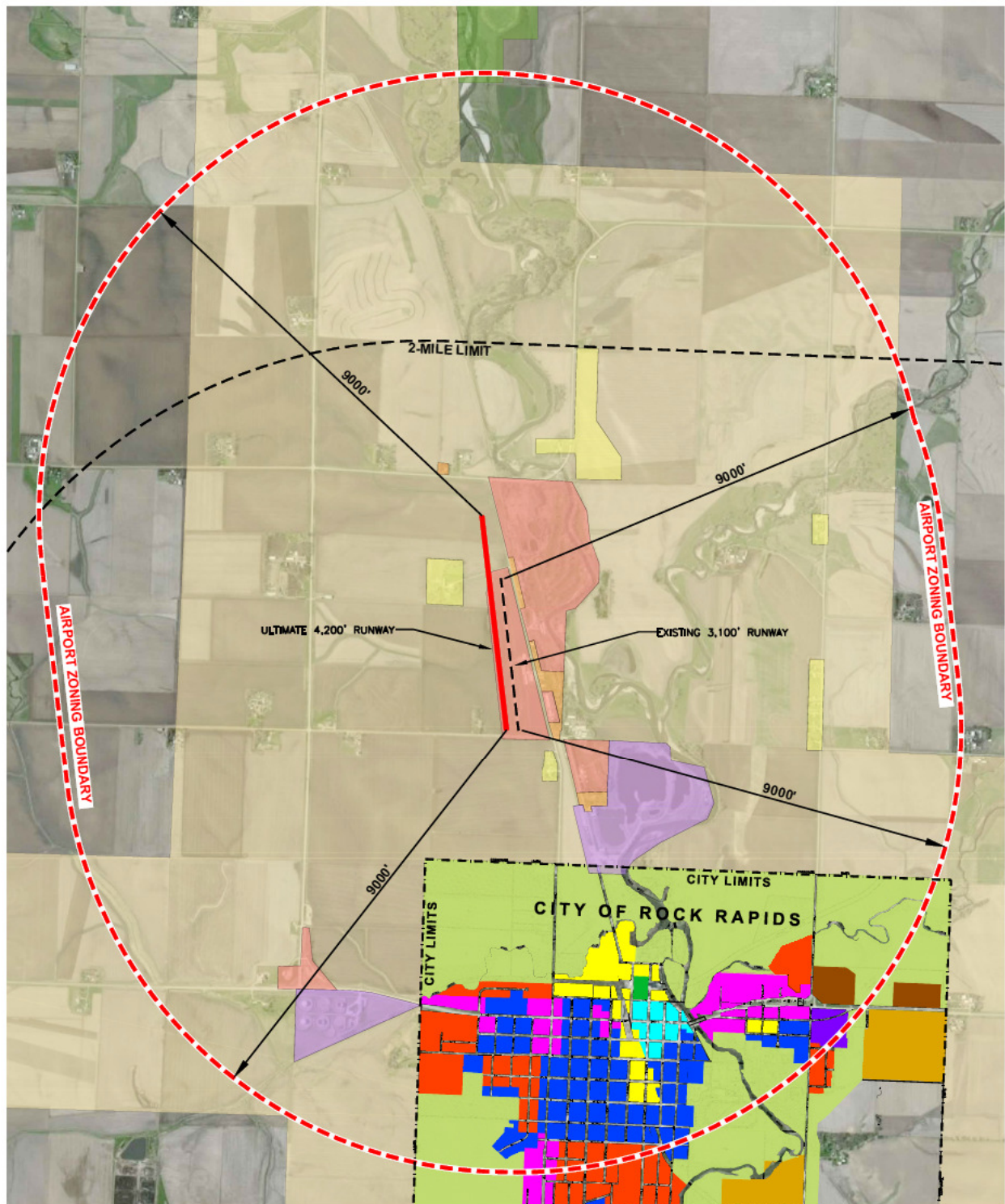
Airport Land Use & Height Overlay Zoning Maps

This exhibit provides the official Rock Rapids Municipal Airport Land Use & Height Overlay Zoning Map to be kept on file with the appropriate governmental entities. The map must be amended when changes occur within the jurisdictional boundaries of the map. The map must be prepared and adopted concurrently with the ordinance. Additionally, a second map shows the boundary of the Rock Rapids Airport Zoning Ordinance in relationship to the county zoning districts and city zoning districts underlying the airport zoning area.



- ZONE A - RUNWAY PROTECTION ZONE
 500'x1000'x700'
 ZONE B - APPROACH SURFACE 20:1 SLOPE
 500'x5000'x2000' (FROM PRIMARY SURFACE)
 ZONE C - TRANSITIONAL SURFACE 7:1 SLOPE
 ZONE D - HORIZONTAL SURFACE
 ZONE E - CONICAL SURFACE - 20:1 SLOPE
 EXISTING ZONE A - RUNWAY PROTECTION ZONE
 500'x1000'x700'
 EXISTING ZONE B - 20:1 APPROACH SURFACE
 500'x5000'x2000' (FROM PRIMARY SURFACE)





LEGEND - ROCK RAPIDS

A	= AGRICULTURAL
R-1	= RESIDENTIAL
R-2	= MULTIPLE RESIDENTIAL
CBD	= CENTRAL BUSINESS DISTRICT
GC-1	= GENERAL COMMERCIAL
GC-2	= GENERAL COMMERCIAL
HC	= HIGHWAY COMMERCIAL
LI	= LIGHT INDUSTRIAL
HI	= HEAVY INDUSTRIAL
MH	= MOBILE HOME

LEGEND - LYON COUNTY

A-1	= AGRICULTURAL
A-2	= AGRICULTURAL
A-3	= CONSERVATION
R-1	= RURAL RESIDENTIAL
R-2	= SUBURBAN RESIDENTIAL
C-1	= HIGHWAY COMMERCIAL
I-2	= HEAVY INDUSTRIAL

